Maximum Number

The *maximum number* game is played in primary school, using a set of sticks, each one with a number engraved. There may be several sticks with the same number. Sticks are previously hidden in the courtyard. When the game starts, children have a few minutes to pick them up. Then, they return to the classroom and must identify the maximum number carved on the sticks collected by all of them.

Task

Given the sticks picked up by the children, the goal is to find out the maximum number carved on them. It is guaranteed that, in the given inputs, some child picked up at least one stick.

Input

The first line of the input has one positive integer, C, which is the number of children.

Each of the following C lines specifies the sticks picked up by a child. Each line contains the number S of sticks collected by the child, followed by S integers, which are the numbers engraved on the sticks. For at least one child, the value of S is different from 0.

Integers on the same line are separated by a single space. Any number carved on a stick fits in a normal signed 32 bit integer.

Constraints

$1 \leq C \leq 150\,000$	(Number of children)
$0 \leq S \leq 10$	(Number of sticks picked up by a child)

Output

The output has a single line with the maximum number carved on the sticks collected by all children.

Sample Input

```
4
3 5 12 2
0
3 25 5 17
5 2 4 2 10 21
```

Sample Output

```
25
```